

## Large Marine Ecosystems (LMEs)

### Description

NOAA's Large Marine Ecosystem (LME) Program provides scientific and technical support to developing countries in ecosystem-based management (EBM). NOAA Fisheries is engaged with countries in Africa, Asia, Latin America, the Pacific, and Europe in implementing the EBM approach for the assessment and management of marine goods and services. At present, LME projects apply five modules for assessing changing states of LMEs: (i) productivity, (ii) fish and fisheries, (iii) pollution and ecosystem health, (iv) socioeconomics, and (v) governance. The modules are adapted to the priority needs of each project based on the outcome of a Transboundary Diagnostic Analysis (TDA) conducted by the participating national governments.

Two international financial institutions provide support to LME projects—the Global Environment Facility (GEF) and the World Bank. The GEF provides up to \$1 million over 12 to 18 months to countries for prioritizing transboundary issues. Typical issues include the recovery of depleted fish and fisheries, control of pollution and nutrient over-enrichment, restoration of degraded habitats, conservation of biodiversity, and mitigation and adaptation to climate change. The TDA prioritization process leads to the preparation of a Strategic Action Program (SAP). Based on the prioritized issues in the TDA, the countries prepare a four to five year plan for recovery and sustainability of the marine goods and services under stress. These processes involve the national ministries for fisheries, environment, energy, development, tourism, and others. Two or more of the engaged ministries are required to approve the SAP for the LME project as a prelude to further financial support from the GEF. The successful projects are eligible for a second phase of financial support. Following the eight to ten years of SAP support, the goal is for the LME projects to become self-financed and managed by an LME commission or another ecosystem-wide governance mechanism.

### Projects

The Global Environment Facility, the World Bank, and other donors are providing \$3.1 billion in financial support to LME projects. NOAA partners with five UN agencies (e.g. UNEP, UNDP, UNIDO, FAO, and IOC-UNESCO), ICES, and two NGOs (IUCN, WWF) to provide scientific and technical support to the LME projects .

Since, The GEF and the World Bank committed financial assistance to the following LME projects. A project with an asterisk is currently active:

1. [AGULHAS AND SOMALI CURRENTS LME PROJECT\\*](#)
2. ARABIAN SEA LME AND RED SEA LME PROJECT
3. BALTIC SEA LME PROJECT
4. [BAY OF BENGAL LME PROJECT\\*](#)
5. [BENGUELA CURRENT LME, BENGUELA CURRENT COMMISSION AND CONVENTION\\*](#)
6. [BLACK SEA LME PROJECT](#)
7. [CANARY CURRENT LME PROJECT\\*](#)
8. [CARIBBEAN SEA LME PROJECT\\*](#)
9. [GUINEA CURRENT LME PROJECT\\*](#)
10. [THE GULF OF MEXICO LME PROJECT\\*](#)
11. GULF OF THAILAND LME AND SOUTH CHINA SEA LME PROJECT\*
12. [HUMBOLDT CURRENT LME PROJECT\\*](#)
13. [INDONESIAN SEA LME PROJECT\\*](#)
14. [MEDITERRANEAN SEA LME PROJECT\\*](#)
15. [PATAGONIAN SHELF LME PROJECT](#)
16. [PACIFIC CENTRAL AMERICAN COASTAL LME PROJECT](#)
17. [SOUTH CHINA SEA PROJECT\\*](#)
18. [SULU-CELEBES SEA LME PROJECT\\*](#)
19. [YELLOW SEA LME PROJECT\\*](#)
20. [WEST BERING SEA LME](#)

### Recent Activities

During 2014, a coalition of ocean leaders from NOAA, the Global Environment Facility, the International Council for the Exploration of the Sea, the United Nations Development Program, and the Intergovernmental Oceanographic Commission of UNESCO, informed a unique cross section of scientists, government experts, educators, the public and the press on the results of the global effort underway for supporting ecosystem-based assessment and management practices in LMEs of the world at the 3<sup>rd</sup> Global LME Conference convened in Swakopmund, Namibia 8-10 October 2014. The Conference's 160 participants were hosted by the Benguela Current Commission and the governments of Angola, Namibia, South Africa, Germany and Norway. Selected Conference papers are presently under review for publication in an LME theme issue of the journal *Environmental Development* published by Elsevier Science. Power point presentations to the Conference can be viewed at [www.benguelacc.org](http://www.benguelacc.org).

### Staff Contact

#### *NOAA Fisheries:*

Dr. Kenneth Sherman  
Narragansett Laboratory  
Northeast Fisheries Science Center  
28 Tarzwell Drive  
Narragansett, RI 02882-1199  
Telephone: (401) 782-3211  
Fax: (401) 782-3201

Dr. Rebecca Shuford  
Fishery Biologist  
Marine Ecosystems Division  
NOAA Fisheries Office of Science and Technology  
Silver Spring, MD 20910  
Telephone: (301) 427-8175  
[Rebecca.Shuford@noaa.gov](mailto:Rebecca.Shuford@noaa.gov)

Dr. Jennifer Bosch LME Coordinator  
Marine Ecosystems Division  
NOAA Fisheries Office of Science and Technology  
Silver Spring, MD 20910  
Telephone: (301) 427-8120  
[Jennifer.Bosch@noaa.gov](mailto:Jennifer.Bosch@noaa.gov)